

1 A DISPOSABLE HYDROGEN FUEL SOURCE

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3 ABSTRACT OF THE DISCLOSURE

4 A disposable hydrogen fuel source includes first and second
5 chambers, a hydrogen-containing material disposed in the first
6 chamber and a reactant disposed in the second chamber, the
7 reactant being adapted to react with the hydrogen-containing
8 material to cause release of hydrogen. A discharge conduit
9 extends from the first chamber for release of hydrogen therefrom.
10 A transfer conduit interconnects the first and second chambers for
11 flowing the reactant from the second chamber to the first chamber,
12 and a check valve is mounted on the transfer conduit and is
13 adapted to open upon decrease in pressure in the first chamber
14 from a selected pressure and is adapted to close upon the pressure
15 in the first chamber rising to the selected pressure. A
16 pressurizer acts upon the reactant in the second chamber to
17 maintain the reactant at the selected pressure. Upon opening of
18 the check valve, the reactant in the second chamber is urged by
19 the pressurizer to flow through the transfer conduit into the
20 first chamber to react with the hydrogen-containing material to
21 release hydrogen until the selected pressure in the first chamber
22 is restored, thereby to close the check valve and to stop the flow
23 of reactant material into the first chamber.